June 5, 2008

Via Electronic Filing

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW, TW – A325
Washington, DC 20554

Re: WT Docket No. 07-195 & 04-356– Written Ex Parte Presentation

Dear Ms. Dortch:

On the very last day of public comments in this docket, Verizon Wireless is only now providing clarifying (and honest) evidence about the hypothetical interference issues raised by AWS-1 licensees.[1] This evidence makes clear that such issues are self-inflicted and are due to flawed and misguided business decisions rather than true technical concerns or valid spectrum policy.

Hypothetical Interference Concerns Mask Competitive Gamesmanship and Flawed Business Decisions:

- In opaque language, Verizon attempts to defend its decision to use filters designed for foreign markets and that go beyond the scope of its FCC license and authorization in order to "reduce[] the cost of equipment. . . ."
- The only previous indication of this material and dispositive fact is a previous filing by Verizon Wireless which included a report by Avago that states that "[m]any filters on the market for AWS-1 have **intentionally** been designed with a wide enough pass band to also support South American UMTS Band X . . . These filters would not protect AWS-1 devices from AWS-3 signals."[2]
- What this means is that Verizon presumably decided to save a few cents on some phones by using a filter inconsistent with its responsibilities as an AWS-1 licensee.
- It is our understanding from conversations with the staff at the FCC that T-Mobile has made the same flawed business decision.

The American People Should Not Bear the Burden of Verizon Wireless and T-Mobile's Failure to do Adequate Technical Due Diligence as Required and Forewarned by the FCC

- In 2003, the Commission stated that "the 2155-2180 MHz band could be used to support TDD operations."
- Also in 2003, the Commission stated that certain AWS licensees must deal with adjacent band interference internally: "by placing the larger 10 and 15 megahertz blocks at either end of the two bands, licensees in these segments will have sufficient bandwidth and maximum flexibility to resolve adjacent band interference concerns."

[1] *See* Letter from Donald Brittingham to Ms. Marlene H. Dortch, WT Docket 07-195 (June 5, 2008).
[2] *See* Comments of Verizon Wireless, WT Docket 07-195 (Dec. 14, 2007) Avago Attachment at page 16. We note that the materiality of Avago's statement that it is many but presumably not all AWS-1 filters that have this design characteristic.

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- In addition, in 2003 Verizon Wireless acknowledged that the unpaired 2155-2175 MHz band "is likely to be used for fixed services *that employ TDD technology*."
- In 2003 the Commission stated that it would "make every effort to provide spectrum opportunities for TDD systems in future allocation and spectrum proceedings, such as in the AWS Allocation proceeding."
- In 2006, AWS bidders were asked to conduct technical due diligence by the FCC including the potential use of the adjacent AWS-3 spectrum for TDD operations: "Potential bidders are reminded that they are solely responsible for investigating and evaluating all technical and marketplace factors that may have a bearing on the value of the AWS-1 licenses in this auction. **. . .** Applicants should perform their individual due diligence before proceeding as they would with any new business venture." (see attached summary of the multiple notices by the FCC regarding these issues).

A Self-inflicted Problem of Two Incumbent Licensees Should not Determine Commission Policy

- This gamesmanship explains why Verizon and T-Mobile have both advocated "downlink only use" of AWS-3.
- Downlink only use would not provide new competitive broadband entry. Instead, it would mask the fact that these carriers are attempting to squat on spectrum that they never won at auction.
- This also explains why (over the past 9 months) these companies have never formally explained why they are advocating more onerous technical protections here than for the spectrum in the 700 MHz auction (of which Verizon was the biggest beneficiary).
- Notably, in the 700 MHz auction, the same mobile-to-mobile technical issues complained of here existed.
- With all of the current spectrum assets that Verizon Wireless and T-Mobile enjoy, these companies should not be allowed to keep competition out of the AWS-3 band simply because they desire to use a filter in their phones that was designed for foreign countries, but not ours.
- The Commission should reject the calls for delay and the inexplicable calls for testing on yet-to-be deployed systems (without service rules) and require these carriers to abide by the contours of their licenses.

Pursuant to Section 1.1206(b) of the Commission rules, an electronic copy of this letter is being filed. Please let me know if you have any other questions regarding this submission.

Sincerely,

Uzoma C. Onyeije

TDD OPERATIONS IN THE AWS-3 BAND IS NOT A NEW IDEA

The FCC contemplates permitting TDD operations in the AWS-3 band	**2/10/03** FCC 03-16 ¶ 68 FCC 03-16 ¶ 69	"We envision that this spectrum could be offered in equally sized paired blocks to support FDD or TDD applications, or a combination of these technologies." "[T]he 2155-2180 MHz band could be used to support TDD operations in a 15 megahertz portion and as relocation spectrum for MDS in the remaining 10 megahertz portion."
The AWS-1 band plan was designed so that licensees in the outer bands would have the ability to deal with adjacent band interference on an internalized basis. In addition, in its decision regarding AWS-1 the FCC committed to seek out opportunities for TDD in future AWS decisions.	**11/23/03** FCC 03-251 ¶ 43 FCC 03-251 ¶ 46	"Along with allowing licensees to tailor their acquisition of licenses to meet their individual business plans, our spectrum block arrangement provides licensees with maximum flexibility to resolve adjacent band interference issues and issues related to the relocation of existing licensees in the 1710-1755 and 2110-2155 MHz bands. By placing the larger 10 and 15 megahertz blocks at either end of the two bands, licensees in these segments will have sufficient bandwidth and maximum flexibility to resolve adjacent band interference concerns." "Our [AWS-1] band plan does not include unpaired spectrum that might be suitable for use by entities interested in using time division duplexing (TDD) transmissions. . . . In the meantime, we will make every effort to provide spectrum opportunities for TDD systems in future allocation and spectrum proceedings, such as in the AWS Allocation proceeding."
Commenting parties contemplate the suitability for TDD technologies of the AWS-3 band and nearby bands included within AWS-2	**9/22/04** FCC 04-219 ¶¶ 43-44	"The AWS Third NPRM sought comment on the potential uses of the 2020-2025 MHz band, including pairing this five megahertz block with an equal-sized amount of spectrum in the 2155-2180 MHz band. . . . AT&T Wireless suggests that the block could either be used as unpaired spectrum suitable for TDD technologies, or as relocation spectrum for government operations displaced from the 1710-1755 MHz band."
AWS-1 Bidders were asked to conduct a due diligence review before placing their bids.	**4/12/06** FCC 06-47 ¶ 38	"Potential bidders are reminded that they are solely responsible for investigating and evaluating all technical and marketplace factors that may have a bearing on the value of the AWS-1 licenses in this auction. **The FCC makes no representations or warranties about the use of this spectrum for particular services. Applicants should be aware that an FCC auction represents an opportunity to become an FCC licensee in the Advanced Wireless Services subject to certain conditions and regulations. An FCC auction does not constitute an endorsement by the FCC of any particular service, technology, or product, nor does an FCC license constitute a guarantee of business success.** Applicants should perform their individual due diligence before proceeding as they would with any new business venture." (emphasis in original).
M2Z applies for a license to provide TDD services in the 2155-2175 MHz band	**5/5/06** M2Z Application at 13	"M2Z's planned network will make use of . . . time division duplex ("TDD"), advanced antenna system ("AAS") technology, and Orthogonal Frequency Division Multiple Access ("OFDMA") waveforms . . . ."
Press reports widely cover the M2Z Application	**5/22/06**	*Business Week* - *http://www.businessweek.com/technology/content/may2006/tc20060522_430352.htm?campaign_id=rss_tech* *New York Times* - *http://www.nytimes.com/2006/05/23/technology/23wireless.html?ex=1306036800&en=e7e84c924c241ca4&ei=5088&partner=rssnyt&emc=rss*
Auction 66 for the AWS-1 band commences with no TDD-related objections	**8/9/06**	*See* http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=66
AWS-1 licensees are allowed to operate at higher power at their base stations.	**3/21/08** FCC 08-85 ¶ 25	"[W]e will allow PCS and AWS licensees employing bandwidths greater than 1 MHz to meet a base station power limit of 1640 watts/MHz EIRP. . . . As we stated in the *April 700 MHz Order*, this approach to defining power limits 'will achieve a degree of technological neutrality by ensuring that all licensees regardless of technology will have enough power to operate a viable service.'"

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June 5, 2008

Ms. Marlene H. Dortch
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Re: *Ex Parte* Presentation
WT Docket No. 04-356 – "H Block"
WT Docket No. 07-195 – "AWS-3"

Dear Ms. Dortch:

On June 4, 2008, I met separately with Renee Crittendon in Commissioner Adelstein's office and Bruce Gottlieb in Commissioner Copps' office to discuss the above-captioned proceedings. In both of those meetings, I discussed Verizon Wireless' concerns about the potential for certain uses of the H Block and AWS-3 spectrum to cause significant harmful interference to existing PCS and AWS licensees, and urged the Commission to adopt rules to prevent such interference.

With regard to the H Block, I noted that mobile transmissions in the 1915-1920 MHz band had the potential to cause significant harmful interference to tens (if not hundreds) of millions of wireless devices operating in the 1930-1990 MHz band, as evidenced by the substantial testing and analysis submitted into the record by CTIA more than three years ago. Based on that testing and analysis, Verizon Wireless joined Sprint and Nextel in proposing both power and out-of-band emissions (OOBE) limits that would reduce the risk of interference. (*See Ex Parte filed Feb. 8, 2005*). Specifically, the three companies proposed that power in the 1915-1917 MHz band be limited to 30 dBm, that power in the 1917-1920 MHz band be limited to 6 dBm, and that OOBE into the 1930-2000 MHz band be limited to -76 dBm/MHz. On May 30, 2008, Sprint-Nextel filed an ex parte with the Commission reiterating its support for this proposal. No other party has opposed this compromise solution, and we urge its adoption.

With regard to AWS-3, I noted that mobile transmissions in some segments of the 2155-2180 MHz band had the potential to cause significant harmful interference to operations in the 2110-2155 MHz AWS-1 band. This interference problem is essentially the same as that affecting the H Block, but is more severe due to the lack of any guard band. I noted the considerable efforts made by the U.S. Government and industry over more than a decade to establish a global identification of the 2110-2170 MHz band for advanced wireless services, to secure an allocation of that spectrum for such uses in the U.S., and to promote the development of equipment based on such harmonized frequency arrangements. The harmonized use of spectrum around the world is a key driver in reducing the cost of equipment and in facilitating roaming from region to region, and was one of the principle reasons the U.S. Government made the decision to allocate this spectrum for AWS. That reasoning is still valid, and should not be abandoned now that the AWS band has been licensed and deployment is progressing. However, even if the Commission were to establish frequency arrangements that are unique to the U.S., forcing U.S. licensees to purchase equipment that is limited to a smaller U.S. market, that equipment would still be subject to significant interference from certain uses of the AWS-3 band. We urge the Commission to promote the continued development of AWS by establishing rules that will prevent harmful interference to AWS-1 licensees.

Pursuant to Section 1.1206(b)(2) of the Commission's Rules, an electronic copy of this letter is being filed for inclusion in the above-referenced docket. Please direct any question regarding this matter to the undersigned.

Respectfully submitted,

VERIZON WIRELESS

By: /s/ Donald C. Brittingham
Donald C. Brittingham
Director – Wireless / Spectrum Policy

cc: Renee Crittendon
Bruce Gottlieb